November 10, 2005

The Honorable John P. Higgins, Jr.
Chairman, PCIE Audit Committee
Department of Education
400 Maryland Avenue, SW
Washington, DC 20024

Dear Chairman Higgins:

I am pleased to inform the PCIE Audit Committee that the IGATI Curriculum Review Board (ICRB) has completed the following course reviews:

- Practical Applications of Statistical Sampling – The review team noted significant weakness in the course content and presentation which the IGATI Director agreed to address.

- TeamMate Electronic Workpapers – Overall, we found that the course was well presented. We noted one aspect of the course, related to the scanning of documents, that should be enhanced. The IGATI Director disagreed with our recommendation to address this matter and we have suggested several alternatives in our final report for IGATI's consideration. We also recommended that IGATI offer an advanced TeamMate course based on student feedback. The IGATI Director agreed to explore this further.

Enclosed are our reports on the above reviews that were issued to the IGATI Director.

If you have any questions, please call me on (202) 927-6516.

Sincerely,

/s/
Marla A. Freedman
Chair, ICRB

Enclosures

cc: Helen Lew, Chair
      Federal Audit Executive Committee

      Danny L. Athanasaw, Director
      Inspectors General Auditor Training Institute

SOCIAL SECURITY

Marla A. Freedman
Assistant Inspector General for Audit
Department of the Treasury
1500 Pennsylvania Avenue, N.W.
Washington, DC 20220

Dear Ms. Freedman:

The enclosed report reflects the results of collaborative efforts of Subgroup 2 of the
Inspectors General Auditor Training Institute Curriculum Review Board. Our objective
was to determine whether the Inspectors General Auditor Training Institute's course,
Practical Applications of Statistical Sampling, provides training that is useful to the
Federal audit community.

If you wish to discuss the report, you may contact me at (410) 965-9700.

Sincerely,

/s/ *Gale Stallworth Stone*

Gale Stallworth Stone,
Deputy Assistant Inspector General
  for Audit

Enclosure

OFFICE OF THE INSPECTOR GENERAL

SOCIAL SECURITY ADMINISTRATION

REVIEW OF THE INSPECTORS GENERAL AUDITOR TRAINING INSTITUTE'S COURSE: *PRACTICAL APPLICATIONS OF STATISTICAL SAMPLING*

NOVEMBER 2005

OBJECTIVE

The objective of this review was to determine whether the Inspectors General Auditor Training Institute (IGATI) course, *Practical Applications of Statistical Sampling,* provides training that is useful to the Federal audit community.

BACKGROUND

According to the overview provided in the course materials for the June 2005 class:

> "This course is a valuable tool for auditors, evaluators, financial analysts and others faced with sampling decisions that do not want to consider expanded theoretical or mathematical discussions of sampling. The course represents a simplified but sufficiently detailed review of sampling techniques and issues. The course provides an overview of the elements of audit sampling. Statistical sampling has become an integral part of the auditor's studies. The use of a designed sample to estimate rates of occurrence or to project total dollar impact with confidence and precision is explored, and appropriate formulas are presented. Methods include attribute and variable sampling, using designs involving simple random sampling, proportions-to-population size sampling, stratified random sampling and cluster random sampling."

According to the Fiscal Year 2005 IGATI course catalogue, participants applying for this class should generally have 2 or more years of experience, basic computer skills and familiarity with Excel. The course level is listed as Intermediate.

In addition, upon completion of the course, a participant will be able to:

1. describe the essential principles and methods of statistical sampling applicable to auditing;
2. apply soundness of sampling methodology;
3. apply attribute and variable sampling, stratified sampling, and compliance sampling methods;
4. evaluate sampling plans and appropriate sampling methods for achieving audit objectives;
5. explain estimation sampling; and
6. discuss the interrelationship and interdependence of statistical sampling and other audit techniques that serve as sources of reliance for audit conclusions and recommendations.

Each participant earns 16 Continuing Professional Education (CPE) credits by attending 2 days of class training and the tuition is $645 per student. For benchmarking purposes, a course offered by the USDA Graduate School entitled *Basic Statistics*

requires 4 days of attendance, costs $895 and allows each participant to earn 32 CPEs. However, the USDA course description appeals to a much broader audience, whereas the IGATI course is targeted to the Inspector General auditing community.

SCOPE AND METHODOLOGY

To conduct this review, Inspectors General staff from the Social Security Administration, the Department of Defense, and the Environmental Protection Agency worked in partnership. We:

- Reviewed course materials provided for classes held on May 10-11, 2004 (11 students), August 10-11, 2004 (5 students) and June 28-29, 2005 (4 students).[1] We reviewed these materials to determine whether they were: (1) current, (2) relevant to the course objective(s), (3) substantive, (4) complete to address the course objective(s), (5) not repetitive of, but build upon, prerequisite courses, and (6) useful as a reference resource "back at the office."

- Reviewed the student evaluation forms for the May and August 2004 classes. Twelve standard-ranking questions and four open-ended questions were asked of each student. We computed composite scores and researched trends to gain an understanding of prior student's reactions immediately upon completion of the course.

- Conducted telephone interviews of four former students (two from the May 2004 class and two from the August 2004 class) and their current supervisors. A standard set of seven questions was asked of each student and eight questions of each supervisor (see Appendices A and B). We conducted the interviews to determine: (1) if expectations were met, (2) class strengths/weaknesses, (3) suggestions for improvements, and (4) usefulness of the course material, as well as the ability to use learned skills in the workplace.

- Observed the June 2005 *Practical Applications of Statistical Sampling* course to gain an understanding of the course curriculum and effectiveness of the course instruction.

IGATI CURRICULUM REVIEW BOARD COURSE ASSESSMENT

We identified opportunities for improving this course to ensure class material is accurate and presented in a clear and concise manner. As a basic-level statistical sampling course, this class plays an important role in the educational development of individuals

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[1] Due to the lack of a sufficient number of enrollees, the class in the IGATI Fiscal Year 2005 Course Catalog scheduled for January 27-28, 2005 was cancelled.

within the Federal audit community. Consequently, we believe steps should be taken to optimize the effectiveness of the course material and the instruction for *Practical Applications of Statistical Sampling.*

COURSE MATERIALS

The *Practical Applications of Statistical Sampling* course was taught in May and August 2004, and June 2005. We observed the class taught in June 2005. During the May and August classes, a three-ring binder was provided to the students. The binder consisted of 287 pages of text. The text was separated into 11 sections, including an introduction, reference materials, and solutions.

For the June 2005 class, the students were provided class materials consisting of 164 pages. In addition, four sets of exercises were distributed to the class participants. The instructor of the June 2005 class stated that previously voiced concerns about the size and scope of the earlier binders led to the reduction in size of the course materials.

We reviewed the 287-page binder. We identified several concerns. These concerns related primarily to incorrect, incomplete and/or inappropriate material. For example, there were:

1. Ambiguous, incomplete, and incorrect definitions
2. Undefined terms and symbols and
3. Footnote superscripts with no notes.

The suitability of the course material was also questionable. The course content could better serve its audience if it focused on practical application instead of the theoretical, mathematical, and developmental aspects of statistical sampling.

In addition, the 287-page binder contained many complex statistical formulas. Although likely to be useful as a reference tool, we question whether this large amount of text was prudent for a 2-day class. We also reviewed the 164-page binder and had similar concerns.

We reviewed the four sets of exercises distributed in the June 2005 class. The exercises were basic in nature and did not complement the stated goals of the class. We believe it would be more practical to present exercises providing knowledge of potential real-life scenarios, so the solutions to the problems could be applied "at the workplace." For example, instead of exercises involving questions about probability related to coin flipping, we believe it would be more beneficial for students to be provided practical exercises, such as the development of particular aspects of a sampling plan or the justification of a proposed sampling approach.

Further, we noticed students appeared confused with the charts and examples included in the binder. On numerous occasions the instructor and students attempted to grasp

the information that was being conveyed. Additionally, students voiced concerns with the format and structure of the material being presented.

INSTRUCTION

To evaluate the instruction for this course, we reviewed student evaluations, interviewed former class participants and their current supervisors, and made course observations. Details are provided below.

Student Evaluations

Course materials and instructor assessments are documented on the student evaluations. The evaluations provide student feedback subsequent to taking the course. To gain an understanding of prior student feedback, we obtained and reviewed the student evaluations from the May and August 2004 classes.

We performed the following analysis of these student evaluations:

1. Computed composite scores for each of the 12 standard ranking questions for each class.

2. Determined the lowest and highest scoring questions, as well as the overall average of all 12 standard ranking questions for each class.

3. Read narrative responses to the four open-ended questions and analyzed trends.

The following tables show our analysis of the student evaluations for the May and August 2004 classes.

Table I. Practical Applications of Statistical Sampling, May 10-11, 2004*				
Key Questions	Rank 5 (Strongly Agree)	Rank 4 (Agree)	Rank 3 (Neutral)	Composite
Instructor				
1. Organized/Prepared	3	8		4.27
2. Knowledgeable	7	4		4.64
3. Effectively Communicated	1	8	2	3.91
4. Aroused Interest/Enthusiasm	1	6	4	3.73
5. Encouraged Participation/Interaction	1	5	5	3.64
6. Considerate/Responsive	5	6		4.45
7. Used Class Time Effectively	5	5	1	4.36
Course/Module				
1. Achieved Objectives	1	8	2	3.91
2. Content Well-Organized	3	6	2	4.09
3. Materials Relevant/Useful	2	8	1	4.09
4. Will Help Improve Performance	2	6	3	3.91
5. Overall a Valuable Experience	1	8	2	3.91
Overall Class Score				4.08

 * There were no Rank 2 (Disagree) or Rank 1 (Strongly Disagree) scores were received.

For the May 2004 class, the overall class ranking was a 4.08 on a scale of one (strongly disagree) to five (strongly agree). The lowest mark 3.64 was received for the question related to whether the instructor encouraged participation/interaction. The highest mark 4.64 was received for the question related to the instructor's knowledge of the subject matter.

Table II. Practical Applications of Statistical Sampling, August 10-11, 2004*				
Key Questions	**Rank 5 (Strongly Agree)**	**Rank 4 (Agree)**	**Rank 3 (Neutral)**	**Composite**
Instructor				
1. Organized/Prepared	4	1		4.80
2. Knowledgeable	4	1		4.80
3. Effectively Communicated	2	2	1	4.20
4. Aroused Interest/Enthusiasm	2	2	1	4.20
5. Encouraged Participation/Interaction	1	4		4.20
6. Considerate/Responsive	3	2		4.60
7. Used Class Time Effectively	3	1	1	4.40
Course/Module				
1. Achieved Objectives	1	4		4.20
2. Content Well-Organized	2	3		4.40
3. Materials Relevant/Useful	2	3		4.40
4. Will Help Improve Performance	2	3		4.40
5. Overall a Valuable Experience	2	3		4.40
Overall Class Score				**4.42**

 * There were no Rank 2 (Disagree) or Rank 1 (Strongly Disagree) scores were received.

For the August 2004 class, the overall class ranking was a 4.42 on a scale of one (strongly disagree) to five (strongly agree). The lowest mark 4.20 was received relating to four questions. The highest mark 4.80 was received relating to only two questions. These questions related to the instructor's organization/preparedness and knowledge of the subject matter.

The four open-ended questions requested the students to provide their views on: (1) what was particularly effective, (2) what parts of the course needed improvement, (3) logistical and administrative assistance, and (4) physical accommodations. The responses to these questions follow.

May 2004

1. "Real life examples using tools being taught" (particularly effective)
2. "Good overview with specific applications" (particularly effective)
3. "The instructor was very knowledgeable" (particularly effective)
4. "It would be good to apply examples to real life experiences" (needing improvement)
5. "There were a few typos in the handouts and handouts in book didn't match what the instructor had on the screen" (needing improvement)
6. "There should be more discussion on evaluating sample results, not just developing [a] sampling plan" (needing improvement)
7. "Would suggest that participants have a working knowledge of EXCEL" (needing improvement)

8. "Might be good to hand out diskettes with EXCEL formulas pre-loaded (I made one for myself)" (needing improvement)
9. "The course should be 2 ½ days" (needing improvement)
10. "Room was comfortable" (physical accommodations)
11. "Good classroom and PC support" (physical accommodations)

August 2004

1. "Instructor was personable and ready to assist with course material as it related to job" (particularly effective)
2. "The course material was very good and will be very useful in the future" (particularly effective)
3. "Short" (particularly effective)
4. "Some of the material, particularly formulas, need to be enlarged on separate sheets" (needing improvement)
5. "(Administrative support) was very pleasant and helpful" (logistical/administrative assistance)
6. "Very comfortable chairs" (physical accommodations)
7. "Excellent physical accommodations" (physical accommodations)

Interviews of Former Class Participants and Current Supervisors

We interviewed four former students and their current supervisors. The interviews were conducted to determine: (1) if expectations were met, (2) class strengths/weaknesses, (3) suggestions for improvements, and (4) usefulness of the course material and the ability to use learned skills in the workplace.

The former students were selected from the May and August 2004 classes. The students were employed by different Federal agencies. The interviews were conducted in person, when possible, and by telephone. A standard set of seven questions was asked of each student and eight questions of each supervisor (see Appendices A and B).

Generally, the comments received during our interviews contradicted the student evaluations. The student evaluations reported the classes were well-received. We believe the contradictions may be caused by students (1) not recording their true thoughts on the evaluations or (2) recording their true thoughts, but then changing their opinions over time. Additionally, the small size of the classes, concerns over being identified, or responding while still within the IGATI environment may all be contributing factors.

The results of the interviews were: one student liked the course, one student liked and disliked parts of the course, and two students disliked the course. The student who enjoyed the course was pleased to learn how to conduct tests, how to pick samples and draw conclusions. This student's expectations were met. The student used her statistical knowledge "back at the workplace." The student who expressed likes and

dislikes felt the course could have been better, but was unable to provide specific concerns; however, this student's expectations were met.

One student who did not enjoy the course felt it focused too much on formulas and selecting samples rather than focusing on evaluating results and implications. This student felt a focus on evaluating results would have been more helpful "back at the workplace." Another student who did not enjoy the class found the class dull and wanted more practical information that could have been used "back at the workplace." These students stated the course did not meet their objectives for taking the course.

We interviewed the student's supervisors. Three of the four supervisors were the student's supervisor at the time the class was taken. The one new supervisor only provided limited feedback.

For the remaining three supervisors, one supervisor mentioned she had not seen any evidence of the learned skills being applied in the workplace, but was pleased with IGATI courses overall. The second supervisor felt his employee gained a new skill set directly related to his work activities. The supervisor stated his employee felt positive about the course and satisfied with the quality of instruction. However, the supervisor mentioned that for approximately half of the IGATI courses, attendees have been satisfied with the instructors. The third supervisor felt her employee did not learn any new skills and the class did not add to the employee's existing knowledge. The supervisor stated the employee told her she did not get a lot of value out of the class and did not feel the class met the needs of the agency or assist her in the work she performs. Based on her employee's comments, the supervisor does not plan to send other staff members to this course.

Course Observations

Two observers attended the June 2005 class to gain an understanding of the course curriculum and effectiveness of the course instruction. This was the first time the instructor taught this course. The instructor was engaging and personable. However, we are concerned about the instructor's (1) knowledge of the course materials and statistical discipline, (2) incorrect and incomplete information provided to students, and (3) time management of the class and presentation format.

Knowledge of Course Materials and Statistical Discipline

The instructor lacked knowledge of course materials and statistical discipline. During this class, the instructor admitted he did not normally teach statistics; rather, his usual instruction was regarding regulations and the Yellow Book. Further, the instructor stated that his professional experience and expertise was in financial auditing. Also, the instructor stated that he was not employed directly in the statistics discipline, and his knowledge of statistics came from interaction with statistical experts during his career and previous college coursework.

The instructor's limited statistical experience was a concern for the observers as the course progressed. At times, the instructor struggled with discussions regarding basic statistical concepts and principles. For example, when fielding questions regarding standard deviation development, the instructor stated that he was hesitant to provide a response because it may be incorrect.

Incorrect or Incomplete Information Provided

During our class observation, we noted several incidents where the instructor provided incorrect or incomplete information to students. The following are several examples.

1. When discussing nonstatistical sampling, the instructor mentioned that prior work experience had allowed him to choose 45 sample items for control testing purposes, and then continue to re-choose 45 sample items until finding an acceptable error (or non-error) rate. From a statistical validity perspective, this is a questionable approach for control testing purposes.

2. When discussing mean, median and mode analysis, the instructor informed the students that the median of a data set is the average value of the largest and smallest value of the data set. This is incorrect, as the median is defined as the middle value.[2]

3. When discussing confidence levels, the instructor mentioned a 95 percent confidence level means one is 95 percent confident that the sample is representative of the population. This is incorrect; a 95 percent confidence level indicates the degree of assurance that the results of a sample are reasonable estimates of specific population characteristics.[3] Also when discussing confidence levels, the instructor mentioned he would not put the confidence level used in work papers or a report. This statement was met with quizzical looks and questions from the students. Some students stated they believed confidence levels should always be disclosed in work papers and reports.

Throughout the class, students asked specific questions regarding how to develop a sample size and the use of formulas. However, questions were left unanswered, and no detailed discussions of any formulas occurred during the class.

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[2] "If the number of observations is odd, there is a single value in the middle, and the middle value is the median. If the number of observations is even, the median is defined to be the average of the two middle values." Robert S. Schulman, *Statistics in Plain English with Computer Applications*, (Chapman & Hall/CRC, 1992) pp. 25-26.

[3] "Since the point estimate is unlikely to coincide exactly with the parameter it estimates, the investigator may prefer to specify a range of values on either side of the sample proportion, a range sufficiently wide so that it can be reasonably confident that the population proportion is included. Instead of relying solely on the point estimate, we specify a range of values within which the population proportion is likely to fall. This range is called a *confidence interval* and its upper and lower boundaries are called *confidence limits*." Henry E. Klugh, *STATISTICS: The Essentials for Research*, (John Wiley and Sons, Inc., 1970) pp. 139-140.

Time Management and Presentation Format

Improvements should be made to the time management of the class and presentation format. Breaks and lunch periods were appropriately managed. However, by 11:00 am on the second day, all of the material had been read, page-by-page verbatim from the binder, by various students. We believe reading the course materials page-by-page is an unorthodox technique to use when providing instruction to professionals.

Further, from 11:00 am to 3:00 pm, including lunch, four sets of exercises were completed by the students. Upon completion of the exercises the class was dismissed. The exercises appeared to be uncomplicated; therefore, we question the time devoted to these exercises.

It is questionable whether the time period spent on these exercises was appropriate for the type of questions being asked. In addition, much of the formula-driven and table-driven information in the binders was hastily discussed. Although numerous students had quizzical looks on their faces and asked basic questions (for example, how to develop a sample size), little in the way of a substantive discussion regarding statistical sampling formulas or discussion of results ensued.

CONCLUSIONS AND RECOMMENDATIONS

The *Practical Applications of Statistical Sampling* course should provide training that is useful to the Federal audit community. The course needs improvements to ensure class materials are accurate and presented in a clear and concise manner. Therefore, we recommend IGATI:

1. Revise the course objectives to focus on the practical applications of statistical sampling in financial and program audits.

2. Revise the course materials to ensure that they are accurate and defensible, clear and concise, and have an applied rather than academic focus.

3. Revise the course presentation to ensure that it contains only valid and generally accepted concepts and methods, that it is clear to its intended audience, and that it is consistent with and complementary to the course materials

4. Include a biographical sketch of the instructor(s) in the course materials.

5. Ensure the instructor possesses the professional and educational experience in statistics.

6. Provide the instructor with appropriate preparation time to learn the course materials.

IGATI COMMENTS

IGATI agreed with our recommendations. The text of IGATI's comments is included in Appendix C

Appendices

Student Interview Questions

Course Title:

Former Student Focus Group Participants:

Name	Agency	Location	Class Attended (Month/Year)

IGATI Curriculum Review Board (ICRB) Subgroup Participants:

Date of Focus Group Meeting:

Explain the purpose of the ICRB and this focus group discussion. Thank the former students for their participation.

1. Did you like the course? Why or why not?

2. What did you expect to get out of the course?

3. Were your expectations met?

4. What do you consider to be the course's strong points?

5. What do you consider to be the course's weak points?

6. How have you applied the skills and knowledge gained from the course on-the-job?

7. If you could change two or three things with the course, what would they be?

Supervisor Interview Questions

Course Title:

Supervisor Focus Group Participants:

Name	Agency	Student Name and Class Attended (Month/Year)

IGATI Curriculum Review Board (ICRB) Subgroup Participants:

Date of Focus Group Meeting:

Explain the purpose of the ICRB and this focus group discussion. Thank the supervisors for their participation.

1. What was your objective for sending your staff member to the course?

2. What new skills and knowledge did you expect the staff member to acquire from the training?

3. Did staff member acquire expected skills and knowledge or meet your other objectives?

4. How has your staff member applied the new skills and knowledge on-the-job?

5. What feedback did the staff member provide you on the strengths and weaknesses of the course?

6. Overall, do you feel the course was of benefit to your staff member's professional development and the needs of your agency? Why?

7. Do you plan to send other staff to this course? If not, why?

8. Do you have any suggestions on ways IGATI could improve the course content and delivery?

The Inspectors General Auditor Training Institute Comments

The Inspectors General Auditor Training Institute
1735 N. Lynn Street ∘ 10ᵗʰ Floor ∘ Arlington, VA 22209
Phone (703) 248-4592 ∘ Fax (703) 248-4587

November 3, 2005

Memorandum For: Brian Karpe
OIG, Social Security Administration

From: Danny L. Athanasaw
Director,
Inspectors General Auditor Training Institute (IGATI)

Subject: IGATI Response to Draft Report of ICRB Review of IGATI Course:
Practical Applications of Statistical Sampling

Thank you for the opportunity to review and respond to the draft report of IGATI's Course titled, **Practical Applications of Statistical Sampling.**

IGATI is presently in a transition year and will consolidate in Fiscal Year (FY) 2007 with the Criminal Investigative Academy and the Management Institute. Additionally, there will be a new Board of Governors that will oversee the new consolidated training center. In this light, the Board of Governors will have final say on the FY 2007 course offering. It is also anticipated that all courses starting in FY 2007 will be contracted. As a result, there will be an opportunity to re-evaluate all course materials and make any necessary changes to materials. Under these new changes coming in FY 2007, IGATI's response to each recommendation follows:

Recommendation 1: **Agree**

IGATI agrees that the Practical Applications of Statistical Sampling course needs to be revised to include more practical applications in both financial and performance audits. IGATI will take necessary action to ensure that changes are implemented to the course.

Recommendation 2: Agree

IGATI will initiate a complete revision to this course to ensure that the course materials are accurate and defensible, clear and concise, and has a more practical focus (see Response to recommendation 1).

Recommendation 3:   Agree

This course if continued in FY 2007 will be revised. Course material will be reviewed to ensure that it contains only valid and generally accepted concepts and methods.

Recommendation 4: Agree

The instructor's biographical sketch will be included in all IGATI courses.

Recommendation 5:   Agree

It is always IGATI's intent to provide professional and technically qualified instructors. For the Practical Applications of Statistical Sampling course IGATI has had difficulty in getting qualified and interested OIG community volunteers. As a result IGATI has not had any consistency in having one particular instructor. Also, in contracting out such a course you have limited knowledge of potential instructors. As a result, IGATI does its best to obtain the most qualified instructors. However, in revising this course, the opportunity exists to build the course materials around more practical applications and develop a more extensive list of potential instructors experienced in using sampling in the conduct of an audit.

Recommendation 6: Agree

IGATI always strives to provide appropriate time for the instructor to prepare. IGATI has initiated a new process of getting contracts out. IGATI has worked with its contracting office to provide statements of work on a timed basis to ensure that the contractor selected will have ample time before the start of the class.

Again thank you and your team members for the opportunity to comment on this report. I appreciate your time and energy involved in this review. I also believe your review will improve the delivery of this course.

If you have any questions, please contact me at (703) 248-4589.

OIG Contacts and Staff Acknowledgments

OIG Contacts – Social Security Administration

Gale Stone, Deputy Assistant Inspector General for Audit, (410) 965-9700

Brian Karpe, Audit Manager, (410) 966-1029

Brennan Kraje, Statistician, (410) 966-0332

OIG Contacts – Department of Defense

Keith R. West, Assistant Inspector General for Audit Follow-up and Technical Support, (703) 604-8905

OIG Contacts – Environmental Protection Agency

John T. Walsh, Deputy Assistant Inspector General for Audit, (202) 566-0822

Acknowledgments

In addition to those named above:

Frank C. Sonsini, Statistician, Department of Defense

Harry Kaplan, Auditor, Environmental Protection Agency

Annette Derito, Writer/Editor, Social Security Administration

Cheryl Robinson, Writer/Editor, Social Security Administration

NOV   8 2005

MEMORANDUM FOR DANNY L. ATHANASAW, DIRECTOR, INSPECTORS
GENERAL AUDITOR TRAINING INSTITUTE

SUBJECT: Report on Inspectors General Auditor Training Institute (IGATI) Curriculum
Review Board Review of IGATI Course: TeamMate Electronic Workpapers

This memorandum transmits the IGATI Curriculum Review Board's final report
on this subject.

The report contains three recommendations. IGATI agrees with the first two
recommendations and disagrees with the third recommendation. We have included
IGATI's comments and our response to their comments in the report.

We appreciate the courtesies extended to the staff. Questions should be directed
to Mr. Dennis Wokeck at (703) 604-0518 or Ms. Barbara S. Wright (703) 604-8933.

By direction of the Deputy Inspector General for Auditing:

Robert K West

Robert K. West
Assistant Inspector General
Audit Followup and Technical Support

**Report on Inspectors General Auditor Training Institute (IGATI) Curriculum
Review Board Review of IGATI Course:
TeamMate Electronic Workpapers**

Course Title:

TeamMate Electronic Workpapers

IGATI Curriculum Review Board (ICRB) Review Completed:

In October 2005 DoD Office of Inspector General with assistance from Department of
Treasury Office of Inspector General completed the review of IGATI's TeamMate
Electronic Workpaper course.

Background:

The objective of our review was to determine whether the Inspectors General Auditor
Training Institute (IGATI) course "TeamMate Electronic Workpapers" provides training
that is useful to Federal auditors.

The course on TeamMate Electronic Workpapers is an introduction to using
PriceWaterhouse Coopers' (PwC) TeamMate Electronic Workpapers package. The
course emphasizes classroom hands-on computer exercises with each student working on
a personal computer (PC). Class size is limited to 16 students.

Each section of this course has a set of detailed objectives, but there is also a set of
objectives for the overall course. Upon completion of this course, the participants will be
able to:

- Understand how to document and what to document in the TeamMate electronic
  working paper environment.

- Know and understand the components of TeamMate, and how to apply and use
  these components for their assignments.

- Understand the structure and parts of a TeamMate project file and how to
  efficiently locate any project file contents.

- Know how to use the common TeamMate functions on a day-to-day basis when
  documenting or reviewing workpaper project files.

- Understand the TeamMate resources (TeamStores, Libraries, and Web-sites) that
  are available for use.

The course catalog does not list any prerequisites for the course, but the course manual assumes that participants have:

- Basic knowledge and experience in operating a PC;

- Working knowledge and experience with Microsoft Windows NT, Windows 2000, Windows 95/98, or Windows XP; and

- Basic knowledge and experience in the use of Microsoft Word & Excel (or similar) materials.

Each participant earns 24 Continuing Professional Education credits by attending the 3 days of classroom training. The tuition for the class is $700.00. IGATI and PwC are the only authorized vendors of TeamMate training. However, some organizations perform their own in-house training. The cost for a PwC representative to perform TeamMate training is $4,000.00 for a 1-day class with a maximum of 20 students.

On February 18, 2004, IGATI conducted its first TeamMate training class. From February 2004 to September 2005, IGATI scheduled 15 classes of which they conducted 14 and trained 171 students. IGATI provides both agency-specific and non-agency specific TeamMate training. Seven of the 15 classes were agency specific and eight classes were non-agency specific. The class attendance for agency specific courses ranged from 4 to 16 students. The average attendance was 10 students. The range of attendance for non-agency specific was 9 to 16 students. The average class size for non-agency specific was 14 students per class.

ICRB Assessment

To gain an understanding of the course content, we reviewed the course material for the TeamMate Electronic Workpapers course presented by IGATI. Our focus was to determine whether the course materials are:

- current;
- relevant to the course objectives;
- substantive;
- complete to address the course objectives;
- useful as a reference resource "back at the office."

We determined that the course materials and the class exercises adequately addressed the above stated criteria.

IGATI provided its most recent course manual, student evaluations, composite scores, class roster, and participants list for 14 classes conducted. The instructor was using the latest version of TeamMate. We observed the TeamMate class from September 7-9, 2005.

To gain an understanding of the prior students' reaction to the course right after taking the course, we obtained and analyzed student evaluations for 14 classes held between February 2004 and September 2005. The 14 classes included 8 regularly scheduled classes and 6 agency specific classes. Instructor Dave Thomanek taught the course through December 2005 (8 courses); Instructor Jeff Dye taught the course beginning February 2005 (5 courses). Both instructors taught the class held in January 2005.

We performed the following to analyze the student evaluations:

- recomputed composite scores for each of the 12 standard ranking questions for each class.
- determined for each class, the highest-scored module, the lowest-scored module, and average.
- read narrative comments on the evaluations and noted any reoccurring themes.
- identified significant trends.

Overall, students gave the course high marks. Composite scores on all questions taught by Instructor Thomanek were exceptionally high, ranging from 4.6 to 4.9. While composite scores for Instructor Dye were somewhat lower—ranging from 4.2 to 4.8— they still reflect a strongly positive student response.

The following table presents our analyses of student evaluations for the seven courses held during fiscal year 2005 (analyzed evaluations for classes in fiscal year 2004 were similar).

Class Date	10/04	1/05	2/05	4/05	5/05	7/05	9/05
Instructor	Thomanek	Thomanek /Dye	Dye	Dye	Dye	Dye	Dye
Class Type	Regular	Agency-specific	Regular	Agency specific	Regular	Regular	Regular
No. of Evaluations	9	10	15	4	13	15	14
Key Questions	Scores (5 is the highest; 1 is the lowest)						
Organized and prepared	4.9	4.6	4.4	4.8	4.5	4.4	4.7
Knowledgeable	4.8	4.7	4.3	4.8	4.2	4.1	4.5
Effectively communicated	4.9	4.6	4.4	5.0	4.7	4.1	4.3
Aroused interest/enthusiasm	4.8	4.4	4.3	5.0	4.6	3.9	4.4
Encouraged participation/interaction	4.8	4.2	4.3	5.0	4.6	4.3	4.4
Considerate/Responsive	4.9	4.7	4.6	5.0	4.8	4.5	4.7
Used class time effectively	5.0	4.6	4.5	5.0	4.5	4.3	4.4
Achieved Objectives	5.0	4.3	4.3	4.5	4.6	4.2	4.6
Content Organized	5.0	4.3	4.3	4.3	4.5	4.2	4.4
Course Material Relevant and Useful	4.9	4.4	4.6	4.5	4.7	4.2	4.5
Course will improve current or future job performance	4.8	4.7	4.7	4.8	4.8	4.1	4.2
Course was valuable experience	4.8	4.7	4.5	4.8	4.6	4.1	4.4
Total Composite Score	4.9	4.5	4.5	4.8	4.6	4.2	4.5

Student narrative comments, where provided, were complimentary of the instructors and the hands-on experience during the course. There were five recurring comments on areas where the course could be improved, or material added, as follows:

- course should cover in more depth the scanning of documents into TeamMate.
- the pace of the course tended to be slow on the first day.
- more exercises should be included.
- IGATI should develop a TeamMate course at an intermediate/advanced level for more experienced users.
- the computer monitors were too small.

Although the student's scores for the July 2005 class were notably lower than the other classes, there was nothing out of the ordinary in the student's narratives for this class.

To gain an understanding of the usefulness of the course at the workplace, we interviewed four former students who took this class between February 2004 and May 2005. We also interviewed three supervisors. To conduct our interviews, we used Appendix A and B, and selected the students from class rosters and participants list provided by IGATI.

All four students interviewed liked the course because of the hands-on exercises and the fact that the instructor was very knowledgeable of the subject matter. They also mentioned that this course was a good overview of TeamMate. Three of the students stated that their expectations of the course were met. One student's expectation was not met because he expected more exercises on hyperlinking and importing and exporting files using TeamMate. Three of the four students are applying the skills and knowledge taught in the class. The students considered the hands-on exercises, small class size, and interaction with students from other agencies to be the course strong points. Two of the four students thought there were too many different skill levels in the class. If the students could make changes to the course, two students said that they would offer an advanced TeamMate course to separate the various skill levels in the class and two would add more hands-on examples. One student thought that a module should be added on trouble shooting.

We interviewed the supervisors of three of the four students. One of the students stated that she did not have a supervisor on site. The three supervisors felt that their employees increased their TeamMate skills and were more comfortable working with the software. Two supervisors stated that their employees gave positive feedback on the class. The third supervisor stated that her employee thought the class was more difficult because of the various experience levels of the students in the class. Two of the three supervisors stated they would continue to send employees to this course as needed. The third supervisor stated that he would not send anyone to the course because all his staff has received TeamMate training. Two of the three supervisors did not have any suggestions to improve the TeamMate course. One supervisor thought that IGATI could improve the course by offering an advanced TeamMate course to separate the various skill levels of students attending the class.

To gain an understanding of the overall effectiveness of course delivery, we arranged with IGATI to observe the course given from September 7-9, 2005. This was the sixth time the instructor taught this course. The instructor was responsive to student questions. When a student asked a question and he was not sure of the answer, he would experiment to find an answer. Our overall observations were similar to the former students. The

hands-on exercises were the strong point of the course. The instructor should include exercises on importing scanned documents to the course manual. The course is not currently designed to teach how to scan documents into TeamMate. The course should have an exercise to demonstrate how to import a scanned document or watermark document into TeamMate. The length of the course was adequate to cover the course material.

Based on our discussion with the IGATI registrar, the TeamMate course is popular and it normally fills up early. Our research shows that IGATI and PwC are the only vendors authorized to perform TeamMate training. However, some agencies have developed an in-house TeamMate course to train their employees.

To determine the degree to which agencies are providing in-house training we contacted members of the Federal TeamMate User Group. The Federal TeamMate User Group consists of approximately 36 Federal and non-Federal organizations. Twenty-six out of 36 agencies contacted responded to our request for information. Six of the 26 agencies are using IGATI to provide TeamMate training to their employees. Seventeen of the 26 agencies have developed an in-house training course or use on the job training to provide TeamMate training to employees. Two of the 26 agencies use both IGATI and provide in-house training to their employees. One agency has recently purchased TeamMate and has not decided on how they will train their employees. Eleven of the 26 agencies used PwC for their initial training.

Recommendations, Management Comments, and Audit Response

We recommend that the Director, Inspector General Auditor Training Institute:

1. Continue to offer the current TeamMate course.

Management Response. Management plans to continue offering this course. There is a need within the Office of the Inspectors General community for this course.

2. Develop an advanced TeamMate course.

Management Response. Management agrees with the concept of developing and offering a follow-on course to the introduction to TeamMate. Management will work with the Board of Governors to determine whether there is need within the Office of the Inspectors General community to offer an advanced TeamMate in FY2007.

3. Develop exercises to demonstrate how to import a scanned document into TeamMate.

Management Response. Management believes that the current course provides discussion on making use of scanners to scan documents into TeamMate. The TeamMate function "Import from File," which would be used to actually pull in the scanned document, is demonstrated several times and the students must use this function in several exercises. To incorporate scanning into an exercise would require the purchase of 17 scanners – one for each student and one for the instructor.

Beyond this expense, there is limited space available for scanners. Comparing the expense of the scanners to the value of incorporating scanning into a 15-minute exercise raises a cost-to-benefit issue.

ICBR Response. We agree in part with IGATI's response. We reviewed the exercises that demonstrate the TeamMate function "Import from File." These exercises demonstrate how to import a file into TeamMate; however, they do not address the process for scanning and importing the scanned document into TeamMate. We recommend that IGATI develop an exercise that focuses on the process of scanning documents into TeamMate. This exercise should outline the steps required to scan and import the scanned document into TeamMate. It is important to provide the participant with information on the process and to provide a resource that may be used back in the office. We are not recommending that IGATI purchase 17 scanners for the class. However, if IGATI were to consider buying scanners, they do not have to purchase scanners at a 1:1 ratio. The scanners can be shared by the students. Regardless of whether IGATI decides to purchase scanners, they should develop an exercise to explain the process of importing a scanned document into TeamMate. We realize that the exercise that demonstrates "Import from File" and importing a scanned document into TeamMate is the same process; however, based on the student evaluations they are not making that same connection. Therefore, by including an additional exercise that focuses on importing a scanned document, the instructor specifically makes the connection between scanned documents and importing for the students. The ICBR maintains its position.

Appendix A. Student Interview Questions

Course Title:

Former Student Focus Group Participants:

			Class Attended
Name	Agency	Location	(Month/Year)

ICRB Subgroup Participants:

Date of Focus Group Meeting:

Explain the purpose of the ICRB and this focus group discussion. Thank the former students for their participation.

1. Did you like the course? Why or why not?

2. What did you expect to get out of the course?

3. Were your expectations met?

4. What do you consider to be the course's strong points?

5. What do you consider to be the course's weak points?

6. How have you applied the skills and knowledge gained from the course on the job?

7. If you could change two or three things with the course, what would they be?

Appendix B. Supervisor Interview Questions

Course Title:

Supervisory Focus Group Participants:

		Student Name and Class Attended
Name	Agency	(Month/Year)

Date of Focus Group Meeting:

Explain the purpose of the ICRB and this focus group discussion. Thank the former students for their participation.

1. What was your objective for sending your staff member to the course?

2. What new skills and knowledge did you expect the staff member to acquire from the training?

3. Did staff member acquire expected skills and knowledge or meet your other objectives?

4. How has your staff member applied the new skills and knowledge on the job?

5. What feedback did the staff member provide you on the strengths and weaknesses of the course?

6. Overall, do you feel that the course was of benefit to your staff member's professional development and the needs of your agency? Why?

7. Do you plan to send other staff to this course? If not, why?

8. Do you have any suggestions on ways IGATI could improve the course content and delivery?
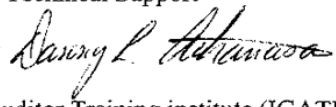
The Inspectors General Auditor Training Institute
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October 26, 2005

Memorandum For: Robert K. West
Assistant Inspector General
Audit Follow-up and Technical Support

From: Danny L. Athanasaw
Director
Inspectors General Auditor Training institute (IGATI)

Subject: IGATI Response to Draft Report of ICRB Review of IGATI
Course: Teammate Electronic Workpapers.

Thank you for the opportunity to review and respond to the draft report of IGATI's course titled "Teammate Electronic Workpapers".

IGATI is presently in a transition year and will consolidate in Fiscal year 2007 with the two other training centers (Criminal Investigative Academy and the Management Institute). Additionally, there will be a Board of Governors that will oversee the new training institute. In this regards final course offerings will be at their discretion. It is also anticipated that all courses starting in FY 2007 will be contracted. As a result there will be an opportunity to re-evaluate all course materials. Under this backdrop, IGATI's response to each recommendation follows:

Recommendation 1: IGATI agrees with the recommendation

IGATI plans to continue offering this course. There is a need within the OIG community for this course.

Recommendation 2: IGATI agrees with the concept of the recommendation.

IGATI agrees with the concept of developing and offering a follow-on course to the introduction to TeamMate. IGATI will work with the Board of Governors to determine if there is need with the OIG community to offer an advanced TeamMate in FY2007.

Recommendation 3: IGATI disagrees with the recommendation.

IGATI believes that the current course provides discussion on making use of scanners to scan documents into TeamMate. The TeamMate function "Import from File", which would be used to actually pull in the scanned document, is demonstrated several times and the students must use this function in several exercises. To incorporate scanning into an exercise would require the purchase of 17 scanners – one for each student and one for the instructor.

Beyond this expense, there is limited space available for scanners. Comparing the expense of the scanners to value of incorporating scanning into a 15 minute exercise raises a cost to benefit issue.

Again thank you and your team members for the opportunity to comment on this report. I appreciate your time and energy involved in this review. I also believe your review will improve the delivery of this course.

If you have any questions or further concerns, please contact me at (703) 248-4589.